

In the Claims:

1-33. (canceled)

34. (new) A method of enhancing the efficiency of delivery of a nucleic acid encoding a heterologous protein or polypeptide to a cell, said method comprising

a) providing to said cell at least one agent capable of enhancing the cytoskeletal permissiveness of said cell for transfection in an amount effective to enhance said cytoskeletal permissiveness, and

b) providing to said cell said nucleic acid encoding said heterologous protein or polypeptide for the transfection of said cell, whereby the efficiency of delivery of said nucleic acid to said cell is enhanced.

35. (new) The method of claim 34, wherein said at least one agent is selected from the group consisting of denatured collagen, a peptide of denatured collagen, a cytochalasin, an integrin modulator, an ion channel blocker, a beryllium fluoride salt, a cadmium salt, and a modulator of an oncogene.

36. (new) The method of claim 34, wherein said at least one agent modulates a complex selected from the group consisting of Erk1/Srf complex and JNK activated AP-1 complex.

37. (new) The method of claim 35 wherein said integrin modulator modulates an integrin selected from the group consisting of $\alpha_v\beta_3$, $\alpha_2\beta_1$, $\alpha_8\beta_1$, $\alpha_9\beta_1$, $\alpha_9\beta_3$, or $\alpha_v\beta_6$.

38. (new) The method of claim 37, wherein said integrin modulator modulates integrin $\alpha_v\beta_3$.

39. (new) The method of claim 35, wherein said oncogene is selected from the group consisting of Fak, Src, Grb2, Ras, Sos, Raf, Cav, Shc, Cdc42, Rac, RhcA, MEK, MAPK, MRK1, and MRK2.

40. (new) The method of claim 35, wherein said at least one agent is denatured collagen or a peptide of denatured collagen.

41. (new) The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned in a vector which is provided to said cell simultaneously with providing said at least one agent.

42. (new) The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned in a vector which is provided to said cell prior to providing said at least one agent.

43. (new) The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned in a vector which is provided to said cell after providing said at least one agent.

44. (new) The method of claim 34, wherein said nucleic acid encoding said heterologous protein or polypeptide is provided to said cell using a vector selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.

45. (new) A composition for enhancing the efficiency of delivery of a nucleic acid encoding a heterologous protein or polypeptide to a cell, said composition comprising:

a) at least one agent capable of enhancing the cytoskeletal permissiveness of said cell for transfection in an amount effective to enhance said permissiveness; and

b) said nucleic acid encoding said heterologous protein or polypeptide for the transfection of said cell.

46. (new) The composition of claim 45, wherein said at least one agent is selected from the group consisting of denatured collagen, a peptide of denatured collagen, a cytochalasin, an integrin modulator, an ion channel blocker, a beryllium fluoride salt, a cadmium salt, and a modulator of an oncogene.

47. (new) The composition of claim 45, wherein said at least one agent modulates a complex selected from the group consisting of Erk1/Srf complex and JNK activated AP-1 complex.

48. (new) The composition of claim 46, wherein said integrin modulator modulates an integrin selected from the group consisting of $\alpha_v\beta_3$, $\alpha_2\beta_1$, $\alpha_8\beta_1$, $\alpha_9\beta_1$, $\alpha_9\beta_3$, or $\alpha_v\beta_6$.

49. (new) The composition of claim 48, wherein said integrin modulator modulates integrin $\alpha_v\beta_3$.

50. (new) The composition of claim 46, wherein said oncogene is selected from the group consisting of Fak, Src, Grb2, Ras, Sos, Raf, Cav, Shc, Cdc42, Rac, RhoA, MEK, MAPK, MRK1, and MRK2.

51. (new) The composition of claim 46, wherein said at least one agent is denatured collagen or a peptide of denatured collagen.

52. (new) The composition of claim 45, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned into a vector which is selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.

53. (new) The composition of claim 45, wherein said cell is a vascular smooth muscle cell.

54. (new) The composition of claim 45, further comprising a vehicle that is suitable for pharmaceutical delivery.

55. (new) The composition of claim 54, wherein said vehicle is a liposome forming lipid.

56. (new) The composition of claim 45, further comprising a carrier that permits controlled release of said at least one agent.

57. (new) The composition of claim 56, which is coated onto a tissue or organ localizing device.

58. (new) The composition of claim 57, wherein said tissue or organ localizing device is selected from the group consisting of a stent, a vascular catheter, and a urinary catheter.

59. (new) A kit for enhancing the efficiency of delivery of a nucleic acid encoding a heterologous protein or polypeptide to a cell, said kit comprising

- a) an instructional material;

b) at least one agent capable of enhancing the cytoskeletal permissiveness of a cell for transfection in an amount effective to enhance said permissiveness; and

c) said nucleic acid encoding said heterologous protein or polypeptide.

60. (new) The kit of claim 59, wherein said at least one agent is selected from the group consisting of denatured collagen, a peptide of denatured collagen, a cytochalasin, an integrin modulator, an ion channel blocker, a beryllium fluoride salt, a cadmium salt, and a modulator of an oncogene.

61. (new) The kit of claim 59, wherein said at least one agent modulates a complex selected from the group consisting of Erk1/Srf complex and JNK activated AP-1 complex.

62. (new) The kit of claim 60 wherein said integrin modulator modulates an integrin selected from the group consisting of $\alpha_v\beta_3$, $\alpha_2\beta_1$, $\alpha_8\beta_1$, $\alpha_9\beta_1$, $\alpha_9\beta_3$, or $\alpha_v\beta_6$.

63. (new) The kit of claim 62, wherein said integrin modulator modulates integrin $\alpha_v\beta_3$.

64. (new) The kit of claim 60, wherein said oncogene is selected from the group consisting of Fak, Src, Grb2, Ras, Sos, Raf, Cav, Shc, Cdc42, Rac, RhcA, MEK, MAPK, MRK1, and MRK2.

65. (new) The method of claim 60, wherein said at least one agent is denatured collagen or a peptide of denatured collagen.

66. (new) The kit of claim 59, wherein said nucleic acid encoding said heterologous protein or polypeptide is cloned

into a vector selected from the group consisting of a plasmid vector, a viral vector, and a linearized nucleic acid.